Jabalpur Engineering College, Jabalpur

(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)

(AICTE Model Curriculum Based Scheme)

Bachelor of Technology (B.Tech.) V Semester (Civil Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	BT521	HSMC	Engineering Economics and Management	70	20	10	-	-	100	3	-	-	3
2	CE502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	CE503	PCC	Structural Analysis-I	70	20	10	30	20	150	3	-	2	4
4	CE504	PCC	Geotechnical Engineering-II	70	20	10	30	20	150	3	-	2	4
5	CE505	PCC	Structural Design-I (RCC)	70	20	10	30	20	150	3	-	2	4
6	CE407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	CE508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code CE508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

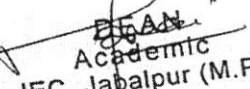| List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	CE502A	Elements of Environmental Engineering
2	CE502B	Water Resource Conservation
3	CE502C	Water Resource Engineering

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit | 1 hour Tutorial (T) = 1 credit | 2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur

(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Computer Science & Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	BT511	HSMC	Professional Ethics	70	20	10	-	-	100	3	-	-	3
2	CS502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	CS503	PCC	Database Management Systems	70	20	10	30	20	150	3	-	2	4
4	CS504	PCC	Computer Graphics & Multimedia	70	20	10	30	20	150	3	-	2	4
5	CS505	PCC	Artificial Intelligence	70	20	10	30	20	150	3	-	2	4
6	CS407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	CS508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code CS508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

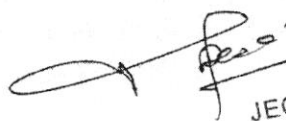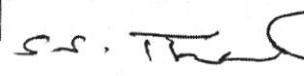| List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	CS502A	Virtual Reality
2	CS502B	Theory of Computation
3	CS502C	Advance Computer Architecture

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Electrical Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work					
1	BT521	HSMC	Engineering Economics and Management	70	20	10	-	-	100	3	-	-	3
2	EE502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	EE503	PCC	Electrical Machine - II	70	20	10	30	20	150	3	-	2	4
4	EE504	PCC	Power Electronics	70	20	10	30	20	150	3	-	2	4
5	EE505	PCC	Control System	70	20	10	30	20	150	3	-	2	4
6	EE407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	EE508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code EE508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	EE502A	Power System-II
2	EE502B	Electrical Energy Conversation & Auditing
3	EE502C	Computational Electromagnetic

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (E&TC Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	BT511	HSMC	Professional Ethics	70	20	10	-	-	100	3	-	-	3
2	EC502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	EC503	PCC	Digital Communication	70	20	10	30	20	150	3	-	2	4
4	EC504	PCC	Communication Network & Transmission Line	70	20	10	30	20	150	3	-	2	4
5	EC505	PCC	Microprocessor & Microcontrollers	70	20	10	30	20	150	3	-	2	4
6	EC407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	EC508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4

NSS/NCC/Swachhata Abhiyan/Rural Outreach	Qualifier
Additional Course for Honours or Minor Specialization	Permitted to opt for maximum two additional courses in subject code EC508 for the award of Honours (Minor Specialization).

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	EC502A	Data Structure
2	EC502B	Industrial Electronics
3	EC502C	Bio-Medical Instrumentation

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur

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(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Industrial & Production Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignme nt	End Sem.	Lab Work		L	T	P	
1	BT521	HSMC	Engineering Economics and Management	70	20	10	-	-	100	3	-	-	3
2	IP502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	IP503	PCC	Tool Engg. & Machine Tools	70	20	10	30	20	150	3	-	2	4
4	IP504	PCC	Metal Cutting Science	70	20	10	30	20	150	3	-	2	4
5	IP505	PCC	Work Study & Ergonomics	70	20	10	30	20	150	3	-	2	4
6	IP407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	IP508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code IP508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	IP502A	Metrology & Quality Control
2	IP502B	Sequencing & Scheduling
3	IP502C	Productivity Management

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur

(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Information Technology)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	BT521	HSMC	Engineering Economics and Management	70	20	10	-	-	100	3	-	-	3
2	IT502	OEC	Open Elective - 1	70	20	10	-	-	100	3	1	-	4
3	IT503	PCC	Computer Network	70	20	10	30	20	150	3	-	2	4
4	IT504	PCC	Operating System	70	20	10	30	20	150	3	-	2	4
5	IT505	PCC	Data Base Management System	70	20	10	30	20	150	3	-	2	4
6	IT407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	IT508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4

NSS/NCC/Swachhata Abhiyan/Rural Outreach	Qualifier
Additional Course for Honours or Minor Specialization	Permitted to opt for maximum two additional courses in subject code IT508 for the award of Honours (Minor Specialization).

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	IT502A	Automata and Compiler Design
2	IT502B	Computer Graphics and Multimedia
3	IT502C	Management Information System

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur

(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Mechanical Engg.)

w.e.f. July 2017-18 batch

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	ME501	HSMC	Entrepreneurship and Management Concepts	70	20	10	-	-	100	3	-	-	3
2	ME502	OEC	Open Elective - I	70	20	10	-	-	100	3	1	-	4
3	ME503	PCC	I.C. Engines	70	20	10	30	20	150	3	-	2	4
4	ME504	PCC	Turbo Machines	70	20	10	30	20	150	3	-	2	4
5	ME505	PCC	Dynamics of Machines	70	20	10	30	20	150	3	-	2	4
6	ME407	DLC/PI	Industrial Training/Internship Evaluation	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	ME508	DLC	Self-Learning Presentation (SWAYAM/NPTEL/MOOC)	-	-	-	-	-	-	-	-	-	4
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum two additional courses in subject code ME508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

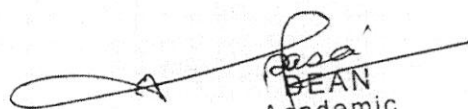| List of Open Elective Course - 1		
S.No.	Subject Code	Subject Name
1	ME502A	Instrumentation Measurement & Control
2	ME502B	Mechatronics
3	ME502C	TQM and SQC

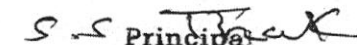|	
HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

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Jabalpur Engineering College, Jabalpur
(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester (Artificial Intelligence & Data Science)

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical						
				End. Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Lab Work		L	T	P	
1	BT511	HSMC	Professional Ethics	70	20	10	-	-	100	3	-	-	3
2	AI502	OEC	Elective I	70	20	10	-	-	100	3	1	-	4
4	AI503	PCC	Deep Learning	70	20	10	30	20	150	3	-	2	4
3	AI504	PCC	Data Science	70	20	10	30	20	150	3	-	2	4
2	AI505	PCC	Digital & Wireless Communication	70	20	10	30	20	150	3	-	2	4
6	AI407	DLC/PI	Industrial Training (Viva)	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	AI508	DLC	SWAYAM/NPTEL/MOOC	-	-	-	-	-	-	-	-	-	8

NSS/NCC/Swachhata Abhiyan/Rural Outreach	Qualifier/-
Additional Course for Honours or Minor Specialization	Permitted to opt for maximum three additional MOOC courses in subject code AI508 for the award of Honours Degree (Minor Specialization).

Note: Departmental BOS will decide list of three elective subjects for each PEC/OEC (Professional /Open Elective Courses). Industrial training viva shall take place in V Sem. which students have already done in IV Sem.

Open Elective Courses I

S.No.	Subject Code	Subject Name
1	AI502A	Probability and Random Process
2	AI502B	Theory Of Computation
3	AI502C	Information Theory & Coding

HSMC	Humanities Sciece and Managerial Courses
OEC	Open Elective Course
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

PEC: Professional Elective (Branch Specific), OEC: Open Elective Course (Interdisciplinary), PCC: Professional Core Course, DLC/PI: Digital Learning / Project Internship Courses/Project and Internship, MC: Mandatory Courses

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

28/7/2023

Dean (Academics)
Jabalpur Engineering College
Jabalpur (M.P.)

Jabalpur Engineering College, Jabalpur

(Declared Autonomous by MP Govt., Affiliated to RGPV, Bhopal)
(AICTE Model Curriculum Based Scheme)
Bachelor of Technology (B.Tech.) V Semester Mechatronics Engineering

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours Per Week			Total Credits
				Theory			Practical			L	T	P	
				End. Sem.	Mid Sem. Exam.	Quiz/ Assign ment	End Sem.	Lab Work					
1	BT511	HSMC	Professional Ethics	70	20	10	-	-	100	3	-	-	3
2	MT502	OEC	Elective I	70	20	10	-	-	100	3	1	-	4
3	MT503	PCC	Thermodynamics & Applications	70	20	10	30	20	150	3	-	2	4
4	MT504	PCC	Smart & Embedded Instrumentation	70	20	10	30	20	150	3	-	2	4
5	MT505	PCC	Machine Design	70	20	10	30	20	150	3	-	2	4
6	MT407	DLC/PI	Industrial Training	-	-	-	60	40	100	-	-	2	1
			Total	350	100	50	150	100	750	15	1	8	20
7	MT508	DLC	SWAYAM/NPTEL/MOOCs	-	-	-	-	-	-	-	-	-	8
NSS/NCC/Swachhata Abhiyan/Rural Outreach				Qualifier / -									
Additional Course for Honours or Minor Specialization				Permitted to opt for maximum three additional courses in subject code MT508 for the award of Honours (Minor Specialization).									

Note: Departmental BOS will decide list of three optional subjects those are available in MOOC as well for OEC.

List of Open Elective Course - I		
S.No.	Subject Code	Subject Name
1	MT502 A	Discrete Signal Processing
2	MT502 B	Finite Element Analysis
3	MT502 C	Industry 4.0 & IIOT

HSMC	Humanities Science and Managerial Course
OEC	Open Elective Course (Interdisciplinary)
PCC	Professional/Programme Core Course
DLC/PI	Digital Learning Courses/Project and Internship

1 hour lecture (L) = 1 credit	1 hour Tutorial (T) = 1 credit	2 hour Practical (P) = 1 credit

MOOC/DLC Courses	MOOC subjects shall be taken with permission of HOD/Coordinator

28/7/2023

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